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- **Lethebinh, Phuong**
Kanata, Ontario K2M 2V4 (CA)
- **Adolph, Stephen Kieran Anthony**
Ottawa, Ontario K2A 2H3 (CA)

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(71) Applicant: **Akara Corporation**
Kanata, Ontario K2L 2N2 (CA)

(74) Representative: **Lawrence, John**
Barker Brettell
138 Hagley Road
Edgbaston
Birmingham B16 9PW (GB)

(72) Inventors:
• **Wiebe, Marvin Jake**
Stittsville, Ontario K2S 1G9 (CA)

(54) **Service protection method and apparatus for TDM or WDM communications networks**

(57) Service path protection is provided for packet-based data services (e.g. GbE or FC) by making available to a protected service, as and when needed, pre-emptable (i.e. sharable) transport bandwidth (e.g. STS-1s for a SONET network) used, under normal conditions, to transport other data services. Each client-based service path is defined by a selectable working path when service protection has not been initiated for that service path and each working path comprises a selectable bandwidth, selectable portions of which are designated as unpre-emptable and/or pre-imputable, whereby the pre-emptable bandwidth portions are made available for protection pre-emption by different service

paths. A protection path is assigned to each protected service path, whereby each protection path comprises a selectable bandwidth having pre-emptable bandwidth portion(s) of working path(s) defining different service path(s) and/or unused network bandwidth. In response to a protection switch request the protected service path is switched so that it is defined by the protection path assigned to it, thereby preempting the pre-emptable bandwidth portion of the protection path for use by the protected service path. The working path bandwidths are selected on a dynamic basis in response to available network bandwidth so as to maximise the use of network bandwidth by the working paths.

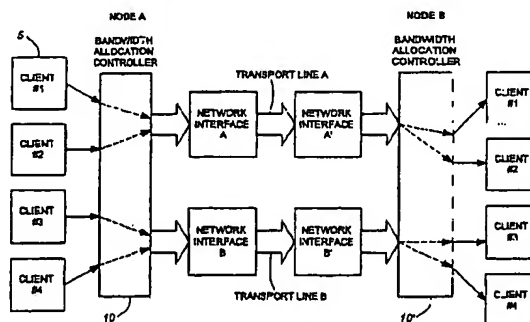


FIG. 1A



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Place of search MUNICH		Date of completion of the search 18 March 2004	Examiner Belloni, P
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**ANNEX TO THE EUROPEAN SEARCH REPORT
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